



# Substance-Specific Applied Research Program

## WHAT IS THE PUBLIC HEALTH ISSUE?

An estimated 14 million people live within one mile of the approximately 1500 National Priorities List (NPL) sites that are targeted for clean-up by the U.S. Environmental Protection Agency (EPA). Additionally, according to EPA's most recent Toxic Release Inventory (TRI), over 4.4 billion pounds of 523 chemicals were released in the USA in 2003. Of the 3,000 chemicals that the US imports or produces at more than 1 million lbs/yr, an EPA analysis finds that 43% of these high production volume chemicals have no testing data on basic toxicity and only seven percent have a full set of basic test data. This lack of test data compromises the public's right to know about the chemicals that are in their environment and the potential for diseases caused by or associated with exposure. Because the public is exposed to chemicals through occupations, consumption of food and water, and through the air, we need to know at what level adverse health impacts occur following exposure, so as to issue protective public health guidance.

## WHAT HAS CDC/ATSDR ACCOMPLISHED?

Authorized by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Agency for Toxic Substances and Disease Registry's (ATSDR) Substance-Specific Applied Research Program (SSARP) was initiated in 1991 to:

- Supply information necessary to improve the knowledge base used to conduct comprehensive public health assessments of populations living near hazardous waste sites.
- Establish linkage between levels of contaminants in the environment and levels in human tissues and organs that are associated with adverse health effects.
- Address the substance-specific information needs of the public and scientific community.

SSARP's research agenda addresses 60 hazardous substances with 263 identified Priority Data Needs (PDNs). To date, about one third of the PDNs have been filled through the following mechanisms:

- CERCLA-supported studies conducted by the Association of Minority Health Professions Schools through an ATSDR cooperative agreement with the Minority Health Professions Foundation.
- Referral of PDNs to EPA resulting in the development of an ATSDR/EPA test rule for eight substances.
- Studies conducted by industry groups under ATSDR's voluntary research program at no expense to the agency and with a cost savings, to date, of approximately \$10 million to ATSDR and the public.
- Studies conducted by the National Toxicology Program (NTP) as mandated by CERCLA, which requires ATSDR to initiate the SSARP in cooperation with NTP.
- Studies conducted through the ATSDR Great Lakes Human Health Effects Research Program, which has independently identified a portion of the PDNs also identified in the SSARP.

The SSARP supports the Environmental Health focus area for Healthy People 2010, and the knowledge gained from this program supports the identified goal of increasing quality and years of healthy life through identification of thresholds of toxicity for chemicals thus leading to implementation of protective public health measures and derivation of chemical specific exposure guidance values.

## WHAT ARE THE NEXT STEPS?

Through SSARP, ATSDR plans to broaden efforts to fill PDNs through outreach to a wider range of federal and private-sector partners.